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| AREVALO, JOSEPH | | | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/517,131

Applicant(s)

VERMA ET AL.

Examiner

JOSEPH AREVALO

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/CD)
Paper No(s)/Mail Date 02/05/2010
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This Action is in response to Applicant's amendment filed on **04/16/2010**. Claims **1-25** are still pending in the present application. This Action is made **FINAL**.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on **02/05/2010** is in compliance with the provision of 37 CFR 1.97, has been considered by the Examiner, and made of record in the application file.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an Application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an Application for patent by another filed in the United States before the invention by the applicant for patent, except that an international Application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an Application filed in the United States only if the international Application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims **1-8, 12-20, 24, and 25** are rejected under 35 U.S.C. 102(e) as being anticipated by **Longoni et al. (US 2004/0082366 A1)**

For claims 1 and 14, Longoni discloses the method and the apparatus, for supporting an interworking between a wireless local area network (**Longoni shows and discloses in figures 4 and 7 and Paragraph [0039]** the UTRAN short for UMTS Terrestrial Radio Access Network. It has a RCN interworking with core network and BSC. This communications network, commonly referred to as 3G (for 3rd Generation Wireless Mobile Communication Technology), and a mobile communications network (**Longoni shows the GSM which is considered as mobile communication network**), the mobile communications

network including a radio access network comprising a transceiver coupled to a radio network controller, the radio network controller being coupled to a core network, the method comprising the steps of: providing an interworking function (IWU **figure 4**) disposed on the wireless local area network (UTRAN **figure 4**) side of the mobile communications network; and connecting the wireless local area network to the mobile communications network by employing the interworking function (**figures 4 and 7**) (**Paragraph [0039] and [0041]**) the UTRAN short for UMTS Terrestrial Radio Access Network. It has a RCN interworking with core network and BSC. This communications network, commonly referred to as 3G (for 3rd Generation Wireless Mobile Communication Technology) as an auxiliary radio network controller associated with the mobile communications network (**Paragraph [0043] and [0044]**).

For claim 2, Longoni discloses the method, wherein the mobile communications network comprises a universal mobile telecommunications system and the interworking function is employed as a drift radio network controller (Longoni shows and discloses in **figures 4 and 7** and **Paragraph [0039]** the UTRAN short for UMTS Terrestrial Radio Access Network. It has a RCN interworking with core network and BSC. This communications network, commonly referred to as 3G (for 3rd Generation Wireless Mobile Communication Technology), can carry many traffic types from real-time Circuit Switched to IP based Packet Switched. The UTRAN allows connectivity between the UE (user equipment) and the core network).

For claims 3 and 15, Longoni discloses the method and the apparatus, wherein said connecting step connects the wireless local area network to the mobile communications network through a user plane interface(**figures 4, 7**)(**Paragraph [0040]**).

For claims 4 and 16, Longoni discloses the method and the apparatus, wherein the mobile communications network has a serving radio network controller, and the user plane interface is disposed between the interworking function and the serving radio network controller (**figure 7**) (**Paragraph [0043]**).

For claims 5 and 17, **Longoni** discloses the method and the apparatus, wherein said connecting step comprises the step of establishing an Iur interface between the interworking function and the serving radio network controller (**Longoni shows and discloses in figure 4 and Paragraph [0041] lines 5-10 the Iur Interface connected between the interworking function and the radio network controller**).

For claims 6 and 18, **Longoni** discloses the method and the apparatus, further comprising the step of diverting data from the serving radio network controller to the wireless local area network through the Iur interface (**Longoni shows and discloses in figure 7 and Paragraph [0043] the Iur Interface connected between the radio network controller to the logical radio network controller which is in the interworking unit that communicates with the IP BTS**).

For claims 7 and 19, **Longoni** discloses the method and the apparatus, wherein said connecting step splits a control plane between the mobile communications network and the wireless local area network and also splits a user plane between the mobile communications network and the wireless local area network (**Longoni shows in figure 7 how is splitting the communications according where the communication come from. As example Longoni shows that a communication with the radio network controller with the logical network or the interworking function identified as Iur and Iur'**).

For claims 8 and 20, **Longoni** discloses the method and the apparatus, wherein said connecting step comprises the step of transmitting a radio link setup request from the serving radio network controller to the interworking function (**paragraph [0040]**).

For claims 12 and 24, **Longoni** teaches the method and the apparatus, wherein the mobile communications network further includes a serving general packet radio service support node, a gateway general packet radio service support node, and a node B, and said method further comprises the steps of: forming a data path from a user equipment to the interworking function to the serving radio network controller to the serving general packet radio service support node to

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the gateway general packet radio service support node(**paragraphs [0041]-[0043]**) ; and forming a control path from the user equipment to the node B to the serving radio network controller to the serving general packet radio service support node to the gateway general packet radio service support node (**paragraph [0023]**).

For claims 13 and 25, **Longoni** teaches the method and the apparatus, further comprising the step of releasing data bearers of the mobile communications network when activity has ceased on data channels of the mobile communications network (**paragraph [0034]**)

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c)

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and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a)

7. Claims **9-11 and 21-23** are rejected under 35 U.S.C. 103(a) as being un-patentable over **Longoni Patent NO.:** (US 2004/0082366 A1) in view of **Fodor Patent Application NO.:** (US 2001/0027490 A1).

For claims **9-11 and 21-23**, **Longoni** discloses the method and apparatus in paragraph 4 of this office action as set forth in claim 4, 8, 10, 16, 20 and 22. However, **Longoni** does not specifically disclose the RNC includes at least one of quality of service (QoS) parameters and a type of dedicated/common transport channel **as recited in claims 9 and 21**; the call admission control (CAC) by the IWF **as recited in claims 10 and 22**; the dedicated/common transport channel requested by the SRNC, and WLAN resources available in an access point (AP) to which a user equipment (UE) will attach **as recited in claims 11 and 23**.

Fodor from the same or similar fields of the endeavor teaches the RNC includes at least one of quality of service (QoS) parameters and a type of dedicated/common transport channel (paragraphs [0146]-[0152] **as recited in claims 9 and 21**); the call admission control (CAC) by the IWF (paragraphs [0185] and [0192] **as recited in claims 10 and 22**); the dedicated/common transport channel requested by the SRNC, and WLAN resources available in an access point (AP) to which a user equipment (UE) will attach (paragraphs [0075] - [0078] **as recited in claims 11 and 23**). Thus, it would have been obvious for the person of ordinary skill in the art at the time of the invention to use the RNC includes at least one of quality of service (QoS) parameters and a type of dedicated/common transport channel; the call admission control (CAC) by the IWF; the dedicated/common transport channel requested by the SRNC, and WLAN resources available in an access point (AP) to which a user equipment (UE) will attach as taught by **Fodor** into the method and system for seamless roaming between wireless communication networks with a mobile terminal of **Longoni**.

The RNC includes at least one of quality of service (QoS) parameters and a type of dedicated/common transport channel; the call admission control (CAC) by the IWF **as recited in claim 10**; the dedicated/common transport channel requested by the SRNC, and WLAN resources available in an access point (AP) to which a user equipment (UE) will attach can be

modify/implemented by combining the RNC includes at least one of quality of service (QoS) parameters and a type of dedicated/common transport channel; the call admission control (CAC) by the IWF; the dedicated/common transport channel requested by the SRNC, and WLAN resources available in an access point (AP) to which a user equipment (UE) will attach this process is implemented as a hardware solution or as firmware solutions of **Fodor** into the method and system for seamless roaming between wireless communication networks with a mobile terminal of **Longoni**. As disclosed in **Fodor**, the motivation for the combination would be to apply a known technique to a known device ready for improvement to yield predictable results.

Response to Arguments

8. Applicant's arguments filed on 04/16/2010, with respect to claims **1** and **14** have been fully considered but they are not persuasive.

Applicant assert that **Longoni** does not teach in claims 1 and 14, "connecting the wireless local area network to the mobile communications network by employing the interworking function as an auxiliary radio network controller associated with the mobile communications network". However, the Examiner respectfully disagrees with such assertion. (See below for further clarification).

In response to the preceding argument Examiner respectfully submits that **Longoni et al** teaches the interworking unit which is contained inside of the IP-RAN (Internet Protocol – Radio Access Network). These RANs as showed in figure 7 interacts with different protocols or neighboring radio network. Longoni discloses in paragraph [0040]:" As is mentioned above in IP RAN, most of the functions of the centralized radio network controller (RNC and BSC) are moved to the base station, IP BTS. In particular, all the radio protocols are moved to the base station. Entities outside the base station are needed to perform common configuration and RR (Radio Resource) functions, or interworking with other radio access networks, gateways to the CN, and micro-mobility anchor point. It must also be noted that these base stations IP BTS can support multi-radio bearer selection, load sharing and the automation of network parameterization for best possible air interface performance for GSMEDGE, TDMAEDGE, CDMA, WCDMA and WLAN based radio access networks. ..."

The prior art should be considered as a whole. See also MPEP § 2141.02 [R-5] Paragraph VI. Claims must be given the broadest reasonable interpretation during examination and limitations appearing in the specification but not recited in the claim are not read into the claim (See M.P.E.P. 2111 [R-I]).

Conclusion

9. **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSEPH AREVALO whose telephone number is (571)-270-3121. The examiner can normally be reached on Monday through Friday 8:00AM to 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rafael Perez-Gutierrez can be reached on (571)-272-7915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

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like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JOSEPH AREVALO/

Examiner, Art Unit 2617

/Rafael Pérez-Gutiérrez/

Supervisory Patent Examiner, Art Unit 2617